

Amendments to the Claims:

Claims 1, 8, 11, 12, 13 and 14 are amended as shown below.

Listing of Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A projection objective comprising:

an object plane;

a first lens group of positive refractive power directly adjacent said object plane;

5 a second lens group of negative refractive power;

at least one additional lens group having positive refractive power and said one additional lens group having a diaphragm mounted therein;

10 said first lens group including only lenses having positive refractive power;

said one additional lens group having a number of lenses of positive refractive power arranged forward of said diaphragm; and,

15 the number of lenses of positive refractive power of said first lens group being less than the number of lenses of positive refractive power of said one additional lens group arranged forward of said diaphragm.

2. (Original) The projection objective of claim 1, wherein at

least one of the lenses of said first lens group is an aspheric lens.

3. (Original) The projection objective of claim 1, wherein said first lens group has at least two positive lenses.

4. (Original) The projection objective of claim 1, wherein all of the lenses of said first lens group are biconvex lenses.

5. (Original) The projection objective of claim 2, wherein said first lens group has an aspheric lens having an asphericity; and, said asphericity deviates by more than 200  $\mu\text{m}$  compared to the best fitting spherical lens surface.

6. (Original) The projection objective of claim 1, wherein the objective has a numerical aperture of at least 0.8.

7. (Original) The projection objective of claim 1, wherein the objective has a numerical aperture of at least 0.9.

8. (Currently Amended) The projection objective of claim 1, wherein all of the lenses of said first lens group and all of the lenses of said second lens group except for the ~~least~~ last one lens thereof all have almost identical diameters.

9. (Original) The projection objective of claim 1, wherein the diameters of at least the first nine lens surfaces are almost the same size.

10. (Original) The projection objective of claim 1, wherein the diameters of at least the first nine lens surfaces are less than a multiple of 1.3.

11. (Currently Amended) The projection objective of ~~claim 1,~~  
claim 9, wherein the ~~approximately equal diameters (D1) of the~~  
~~lenses arranged at the object end~~ sizes of said first nine lens  
surfaces are approximately half as large as the maximum  
diameters ~~(D2) of the following lenses~~ all lenses downstream  
thereof.

12. (Currently Amended) A projection exposure system for microlithography, the system comprising:

a light source for providing ~~radioactive~~ radiation needed for a projection exposure;

5 a projection objective mounted downstream of said light source; and,

said projection objective including:

an object plane;

10 a first lens group of positive refractive power directly adjacent said object plane and said first lens group having a number of lenses of positive refractive power;

a second lens group of negative refractive power;

15 at least one additional lens group having positive refractive power and said one additional lens group having a diaphragm mounted therein;

said first lens group including only lenses having positive refractive power;

said one additional lens group having a number of lenses of positive refractive power arranged forward of said diaphragm;  
20 and,

the number of lenses of positive refractive power of said first lens group being less than the number of lenses of positive refractive power of said one additional lens group arranged forward of said diaphragm.

13. (Currently Amended) The projection objective of claim 12, wherein said light source is an excimer laser and said radiation having a wavelength of less than 25 250 nm.

14. (Currently Amended) A method for making a microstructured component utilizing a projection exposure system including a light source for emitting ultraviolet laser light; and, a projection objective defining an optical axis and mounted  
5 downstream of said light source; said projection objective including: an object plane; a first lens group of positive refractive power directly adjacent said object plane and said first lens group having a number of lenses of positive refractive power; a second lens group of negative refractive power; at least  
10 one additional lens group having positive refractive power and said one additional lens group having a diaphragm mounted therein; said first lens group including only lenses having positive refractive power; said one additional lens group having a number of lenses of positive refractive power arranged forward  
15 of said diaphragm; and, the number of lenses of positive refractive power of said first lens group being less than the

number of lenses of positive refractive power of said one additional lens group arranged forward of said diaphragm; and, the method comprising the steps of:

- 20           introducing a mask containing a pattern between said light source and said projection objective on said optical axis;
- placing a substrate having a light-sensitive layer on said optical axis downstream of said projection objective;
- exposing said layer with said laser light through said mask;
- 25    and,
- developing said light-sensitive layer and structuring said substrate in correspondence to said pattern of said mask.